

Winter 2015 / 2016 Preparedness

November 19, 2015
Illinois Commerce Commission

Richard L. Mathias
PJM Interconnection

When are transmission system operations most challenged?

Some common sense indicators:

- Season of Year
- Day of Week
- Duration / Damage
- Operating Challenges
- and weather matters.

Summer and Winter events present different operational challenges:

- Summer time event (usually hot weather):
 - One peak load each day (about 5 - 6 pm) and usually have higher summer peak loads
 - Generation assets usually operate well in hot weather
 - Transmission lines can have challenges -- over-heat / sag / become congested
- Winter time event (usually cold weather):
 - Two peak loads each day (about 7 am and 5:30 pm). Each daily peak usually lower than summer peak
 - Generation assets can have a difficult time starting / operating
 - Natural gas supply availability challenges / coal piles freeze
 - Usually few transmission line problems

RTO	MW
2015 / 2016 Unrestricted Load Forecast*	131,720
2015 Total Installed Capacity (ICAP)**	177,628

*50/50 PJM Coincident Peak Load. Unrestricted means Demand Response was not subtracted

**ICAP, includes generation internal to PJM (internal Reliability Pricing Model (RPM) / Fixed Resource Requirement (FRR) and other internal iron in the ground), external imports to PJM, and Annual DR for Dec. 1, 2015 as of Sep. 8, 2015)

PJM Studies, Data Requests & Drills

PJM Operations Assessment Task Force (OATF) Winter Operations Study (Nov. 2015)

Resource Winter Testing Exercise (Nov. 2015- Jan. 2016)

PJM Emergency Procedures Drill (Nov. 10, 2015)

Fuel Inventory Survey (Nov. 2015)

Generation owner Cold Weather Resource Preparedness Checklist (Dec. 15, 2015)

Reliability Coordinator Winter Preparation Meetings

PJM / DEP / VACAR (Sept. 30, 2015)

SERC Operating Committee / SERC RCS / VACAR (Oct. 2015)

Reliability First (Nov. 2015)

Joint MISO/PJM/NPCC (Nov. 2015)

NYISO / PJM (Nov. 2015)

TVA / PJM (Nov. 2015)

Completion of EIPC study on Gas / Electric Infrastructure Adequacy

Gas / Electric Coordination

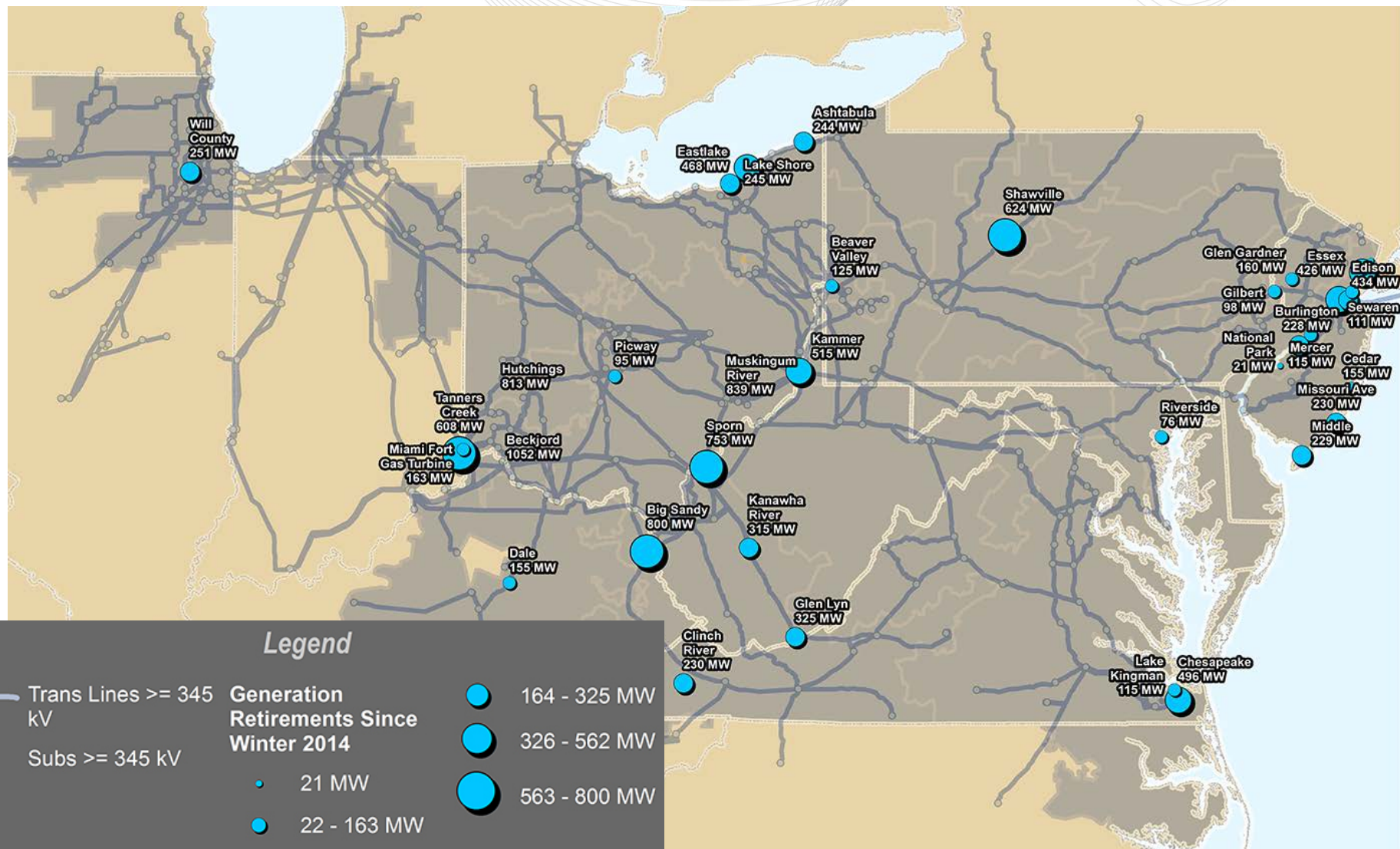
Joint INGAA – Inter-RTO Council Meeting (Oct. 2015)

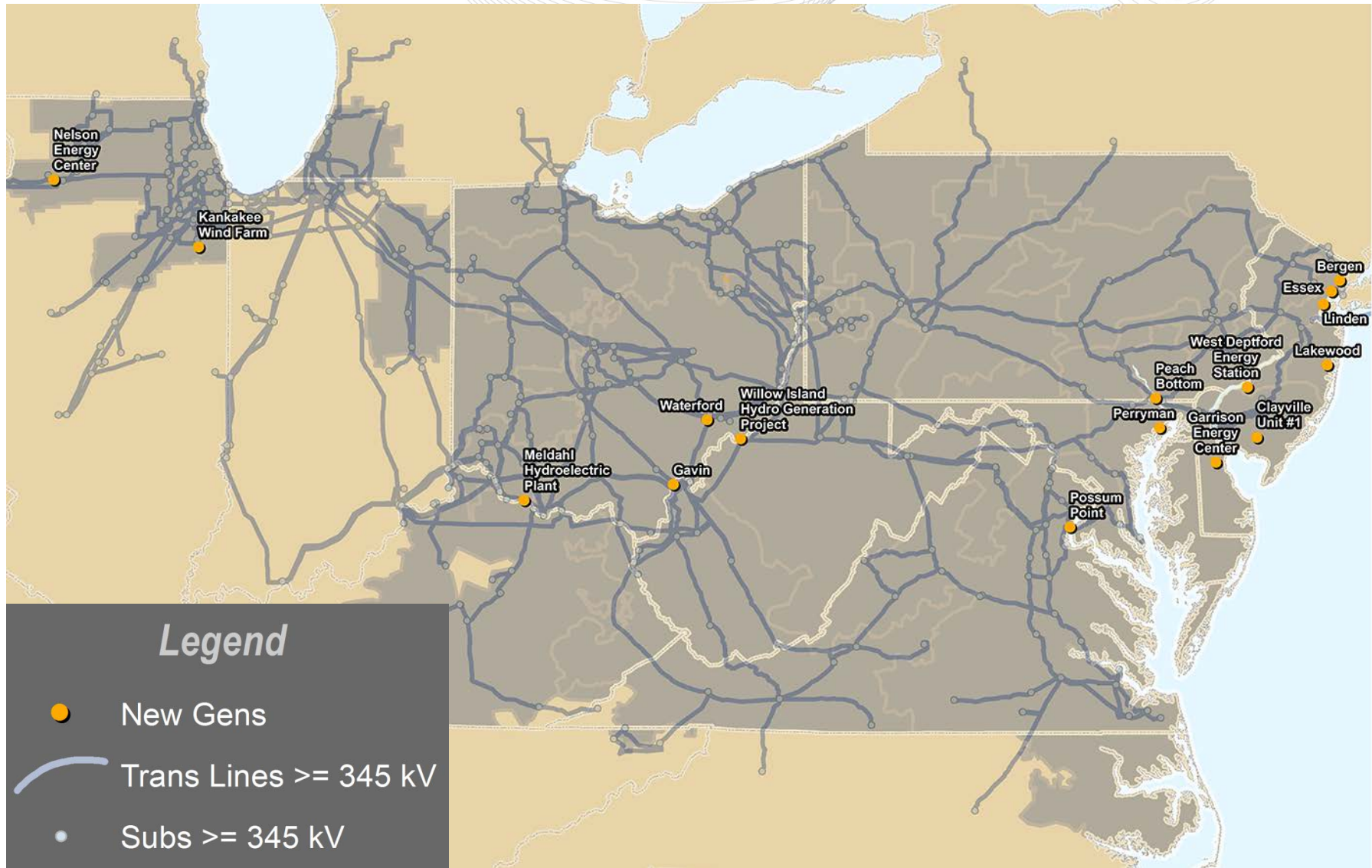
PJM Winter gas preparation meeting (October 26 & 27, 2015)

MOU with PJM Pipelines signed July 2015

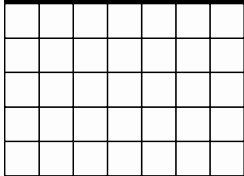
Daily, Weekly, Monthly, and Seasonal Coordination with Pipelines in PJM footprint

LDC outreach in progress



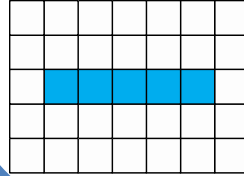


MONTHLY



Monthly coordination of gas and generator planned maintenance between PJM and the pipelines

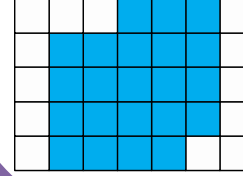
WEEKLY



Weekly or as needed conference calls with interstate pipelines will commence starting Nov. 1 through Mar. 1

- Weekly peak load forecast
- Projected gas usage
- Forecasted system conditions
- Forecasted pipeline conditions

DAILY



Daily review of gas nominations by PJM scheduled generators will start Nov. 1

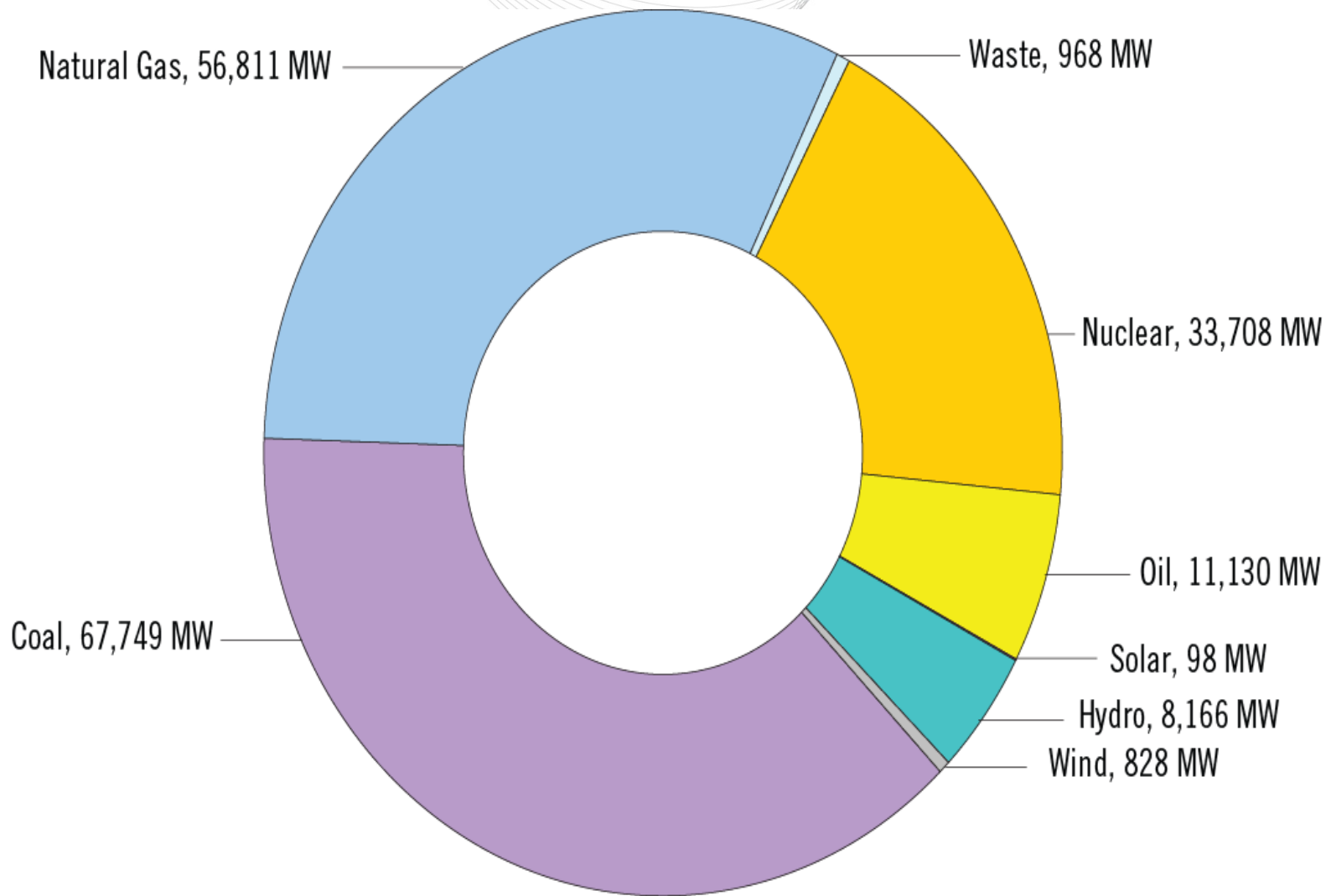
Daily review of Gas Electronic Bulletin Boards (EBBs) for critical notices potentially impacting generation in the footprint

ONGOING



Ongoing PJM, MMU, and Pipeline MOU discussions

Fuel Mix – Existing PJM Installed Generating Capacity (MW, Capacity, December 31, 2014)



Existing Installed Capacity (MW) in Northern Illinois, by Fuel Type (December 31, 2014)

